



# Global Year Against Pain in Women

## real women, real pain

### Women and Migraine

#### About Migraine

- Migraine is a neurological disorder.
- 18% of women and 6% of men suffer from migraine headaches.
- Genetic predisposition plays a role in most patients.
- About 60% of women with migraine have headaches around the time of their menstrual period.
- 15% of women with migraine have migraine headache only with their periods.
- Visual disturbance or aura occurs in 15% of patients.
- Two-thirds of women stop having migraine attacks during pregnancy.
- Post-delivery flares are common, but they are not a contraindication for breast-feeding.
- Two-thirds of women have a decreased frequency of migraine headaches after menopause.
- Women who have migraine with aura should not take estrogen-containing oral contraceptives because of an increased risk of strokes.
- Women who have migraine with aura should stop smoking because of an increased risk of strokes.
- Oral contraceptives taken continuously for several months can suppress the menstrual cycle and minimize severe menstrual attacks in some women.

#### Migraine Triggers

Many migraine triggers bring on attacks:

- stress
- lack of sleep or too much sleep
- weather changes
- hunger
- chocolate; cheese; alcohol; bananas; citrus fruit; fermented, smoked, cured, and dried foods
- excessive amounts of caffeine
- excessive use of analgesics or migraine-specific drugs
- menstrual cycle
- overexertion
- excess stimuli, e.g., bright lights

#### Simplified Diagnostic Criteria: From the Headache Classification Committee of the International Headache Society

Repeated attacks of headache lasting 4–72 hours that have these features:

A: Normal physical examination

B: No other reasonable cause of the headache

C: At least two of

Unilateral pain

Throbbing pain

Aggravation of pain on movement

Moderate or severe intensity of pain

D: At least one of

Nausea or vomiting

Photophobia and phonophobia

#### Diagnostic Difficulties

Migraine is a very disabling condition that can severely impair quality of life. Unfortunately, while some sufferers do not have access to proper care, even those who do may fail to seek treatment because of misperceptions that nothing can be done for a condition from which generation after generation of women have suffered. Other misperceptions are that the only treatments available are drugs that can cause serious side effects or that migraine is a purely psychological disorder.

## **Migraine Research**

Migraine is a brain disorder involving abnormal sensory processing. It is not a disorder of blood vessels, but one of brain function. Positron emission tomography in acute migraine has shown activations in the rostral brainstem that persist after successful treatment of the attack but are not present between attacks. These changes are not seen in other primary headaches, such as cluster headache. The same area of the dorsolateral pons is activated in chronic migraines. Magnetic resonance angiography has shown that blood flow changes seen in migraine and cluster headaches are simply the result of ophthalmic division pain and not a cause of the syndrome. Functional neuroimaging has shown that the changes in the dorsolateral pons in migraine lateralize with the attack. These data suggest that the dorsolateral pons is pivotal in the phenotypic expression of migraine.

Sumatriptan and other drugs in the family of triptans, developed to activate certain serotonin receptors, have been revolutionary in the treatment of migraine headaches and provide dramatic relief to many sufferers. Another breakthrough has come from the realization that blocking release of another neurotransmitter, calcitonin gene-related peptide (CGRP), can also produce very effective relief of migraine. Medications that block CGRP release may become available in the near future.

## **Migraine Treatment**

1. Lifestyle changes that can prevent migraine attacks include:

- getting enough sleep
- regular intake of meals and water
- regular exercise
- avoiding large amounts of caffeine

2. Biofeedback and behavioral strategies such as relaxation may be effective.

3. Triptans are very effective in aborting an attack.

4. On average, two-thirds of patients have a 50% reduction in headache frequency with most preventive drugs. These include pizotifen, beta-blockers (e.g., propranolol), tricyclic antidepressants (e.g., amitriptyline, nortriptyline), and anticonvulsants (e.g., sodium valproate, gabapentin, topiramate). These treatments can have side effects and should be used after or along with nondrug approaches.

5. In some women with menstrual migraines, magnesium can be effective. Since some patients do not absorb oral magnesium, an injection of 1 gram of magnesium sulfate can be given intravenously or intramuscularly prior to the expected menstrual attack.

6. Continuous contraception with an oral contraceptive pill and preventive treatment with a medication for a week prior to the menstrual period can be very effective. This preventive treatment can be attempted with a long-acting nonsteroidal anti-inflammatory drug, such as naproxen or nabumetone, or a beta-blocker, such as atenolol.

7. In pregnant women, magnesium, relaxation techniques and other nondrug approaches should be tried first. Paracetamol (acetaminophen) can be combined with codeine for a safe combination therapy. Triptans do not appear to be harmful and should be considered for severe and disabling attacks. For prevention of migraine in pregnant women, beta-blockers and tricyclic antidepressants are relatively safe.

8. Daily intake of the following nutritional supplements may minimize migraine attacks: magnesium 400 mg, feverfew 100 mg, co-enzyme Q<sub>10</sub> 300 mg, alpha-lipoic acid 600 mg, butterbur extract 150 mg, or riboflavin 400 mg. All these supplements have been subjected to at least one double-blind scientific study and have been shown to be effective for the prevention of migraines in some patients.

9. Acupuncture may be helpful.

## **Conclusion**

The most important fact about migraines is that we have a wide range of very effective treatments, but many sufferers are not aware of them or do not realize that they have migraines. It is recommended to combine lifestyle changes and effective pharmacological treatment to minimize the impact of migraine.

## References

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